CLAIMS:

1.   An apparatus, comprising:

a configuration module to store configuration information;

a parsing module to connect to said configuration module, said parsing module to

receive a frame of information and determine a frame format associated with said frame,

retrieve configuration information corresponding to said protocol, and reconfigure a set

of hardware elements to parse said frame.

2.   The apparatus of claim 1, wherein said parsing module outputs a field type for

said frame.

3.   The apparatus of claim 1, wherein said parsing module comprises a table driven

non-deterministic push down finite automaton.

4.   The apparatus of claim 3, wherein said configuration module comprises:

a state table module to store state information; and

a transition table module to store transition information.

5.   The apparatus of claim 4, further comprising:

a stack to connect to said parsing module; and

a mapping module to connect to said parsing module.

6.   The apparatus of claim 5, further comprising a delay line module to buffer said frame during said frame parsing.

7.   The apparatus of claim 1, wherein said parsing module comprises a microcode sequencer.

8.   The apparatus of claim 7, wherein said configuration module comprises microcode memory to store mask data, compare data, branch addresses and field types.

9.   The apparatus of claim 8, further comprising a delay line module to buffer said frame during said frame parsing.

10.   A system, comprising:

        at least one base station to communicate frames of information using a plurality of different frame formats; and

        a mobile station to receive said frames of information, said mobile station comprising a receiver to receive and process said frames, said receiver to be reconfigured to dynamically process said frames in accordance with said different frame formats.

11.   The system of claim 10, wherein said receiver comprises:

        a power amplifier;

        an RF/IF converter to connect to said power amplifier;

        an IQ module to connect to said RF/IF converter;

a baseband processor to connect to said IQ module; and

a media access controller to connect to said baseband processor.

12. The system of claim 11, wherein said media access controller comprises a

reconfigurable hardware-based frame parser.

13. The system of claim 12, wherein said reconfigurable hardware-based frame parser

comprises:

a configuration module to store configuration information;

a parsing module to connect to said configuration module, said parsing module to

receive a frame of information and determine a frame format associated with said frame,

retrieve configuration information corresponding to said protocol, and reconfigure a set

of hardware elements to parse said frame.

14. The system of claim 13, further comprising a delay line module to buffer said

frame during said frame parsing.

15. A method to perform frame parsing, comprising:

receiving a frame of information;

determining a frame format associated with said frame;

reconfiguring a parsing module to parse said frame of information; and

parsing said frame for frame format information using said reconfigured parsing

module.

16. The method of claim 15, wherein said reconfiguring comprises:

retrieving configuration information from a configuration module corresponding

to said frame format; and

reconfiguring said parsing module using said configuration information.

17. The method of claim 16, wherein said configuration information comprises state

information from a state table and transition information from a transition table.

18. The method of claim 16, wherein said configuration information comprises

microcode information from a microcode module.

19. The method of claim 15, further comprising delaying said frame until said frame

format information is parsed.